

bability ghes.) it affords us an Instance, whereof perhaps there are not many like in Nature, and that is, of the prodigious increase of these Creatures, after they are hatch'd and run about; for a common Wood-louse, of about half an inch long, is no less than a hundred and twenty five thousand times bigger then one of these, which though indeed it seems very strange, yet I have observed the young ones of some Spiders have almost kept the same proportion to their Dam.

This, methinks, if it be so, does in the next place hint a Quarry, which may perhaps deserve a little further examination: And that is, Whether there be not many of those minute Creatures, such as Mites, and the like, which, though they are commonly thought of otherwise, are only the *pully*, or young ones, of much bigger Insects, and not the generating, or parent Insect, that has layd those Eggs; for having many times observ'd those Eggs, which usually are found in great abundance where Mites are found, it seems something strange, that so small an Animal should have an Egg so big in proportion to its body. Though on the other side, I must confess, that having kept divers of those Mites inclosed in a box for a good while, I did not find them very much augmented beyond their usual bigness.

What the husk and cobweb of this little white substance should be, I cannot imagine, unless it be, that the old one, when impregnated with Eggs, should there stay, and fix it self on the Vine, and dye, and all the body by degrees should rot, save only the husk, and the Eggs in the body: And the heat, or fire, as it were, of the approaching Sun-beams should vivifie those Relicts of the corrupted Parent, and out of the ashes, as 'twere, (as it is fabled of the *Phoenix*) should raise a new offspring for the perpetuation of the *species*. Nor will the cobweb, as it were, in which these Eggs are inclos'd, make much against this Conjecture; for we may, by those cobwebs that are carried up and down the Air after a Fog (which with my *Microscope* I have discovered to be made up of an infinite company of small filaments or threads) learn, that such a texture of body may be otherwise made then by the spinning of a Worm.

Observ. LVII. Of the Eels in Vinegar.

OF these small Eels, which are to be found in divers sorts of Vinegar, I have little to add besides their Picture, which you may find drawn in the third Figure of the 25. *Scheme*: That is, they were shaped much like an Eel, save only that their nose A, (which was a little more opacous then the rest of their body) was a little sharper, and longer, in proportion to their body, and the wrigling motion of their body seem'd to be onely upwards and downwards, whereas that of Eels is onely side wayes: They seem'd to have a more opacous part about

about B, which might, perhaps, be their Gills; it seeming always the same proportionate distant from their nose, from which, to the tip of their tail, C, their body seem'd to taper.

Taking severall of these out of their Pond of Vinegar, by the net of a small piece of filtering Paper, and laying them on a black smooth Glass plate, I found that they could wriggle and winde their body, as much almost as a Snake, which made me doubt, whether they were a kind of Eal or Leech.

I shall add no other observations made on this minute Animal, being prevented herein by many excellent ones already publish'd by the ingenious, Doctor *Power*, among his *Microscopical Observations*, save onely that a quantity of Vinegar repleat with them being included in a small Viol, and stop'd very close from the ambient air, all the included Worms in a very short time died, as if they had been stifled.

And that their motion seems (contrary to what we may observe in the motion of all other Insects) exceeding slow. But the reason of it seems plain, for being to move to and fro after that manner which they do, by waving onely, or wrigling their body; the tenacity, or glutinousness, and the density or resistance of the fluid *medium* becomes so exceeding sensible to their extremely minute bodies, that it is to me indeed a greater wonder that they move them so fast as they do, then that they move them no faster. For what a vastly greater proportion have they of their superficies to their bulk, then Eels or other larger Fishes, and next, the tenacity and density of the liquor being much the same to be moved, both by the one and the other, the resistance or impediment thence arising to the motions made through it, must be almost infinitely greater to the small one then to the great. This we find experimentally verifi'd in the Air, which though a *medium* a thousand times more rarify'd then the water, the resistance of it to motions made through it, is yet so sensible to very minute bodies, that a Down-feather (the least of whose parts seem yet bigger then these Eels, and many of them almost incomparably bigger, such as the quill and stalk) is suspended by it, and carried to and fro as if it had no weight.

Observ. LVIII. Of a new Property in the Air, and several other transparent Mediums nam'd Inflection, whereby very many considerable Phænomena are attempted to be solv'd, and divers other uses are hinted.

SINCE the Invention (and perfecting in some measure) of *Telescopes*, it has been observ'd by severall, that the Sun and Moon neer the Horizon, are disfigur'd (losing that exactly-smooth terminating circular limb, which they are observ'd to have when situated neerer the Zenith) and are bounded with an edge every way (especially upon the right and left sides)